About LEVEL news

Contents

Storm Season Here But Risks Low

Speaking of the Great Lakes... ... Like To Learn More About Them?

Water Levels for the Great Lakes and Montreal Harbour ... *a monthly bulletin from Canadian Hydrographic Service*

About the monthly Water Level bulletin

Last Issue

Next Issue

Issue Index

Summary information for "LEVEL*news*"

LEVEL news

Volume 2, Number 10 **October 14, 1994**

October Levels Similar To Last Year's

Storm Season Here, But Risks Low

All of the Great Lakes began October at levels that were very close to those recorded at the same time a year ago.

"This means that the risks of serious flooding and erosion damages during the fall storm season will be relatively low for the second consecutive year," says Ralph Moulton, Manager of Environment Canada's Great Lakes Water Level Communications Centre.

At the beginning of the month, Lakes Superior, St. Clair and Erie were at the same levels of early October, 1993. Lakes Michigan-Huron were 4 cm below their levels of the same time a year earlier, while Lake Ontario was 7 cm above.

However, the middle lakes (Michigan-Huron, St. Clair and Erie) remained between 25 and 35 cm above their long-term averages for the time of year. Lakes Superior and Ontario, meanwhile, were only 4 and 5 cm above average.

The levels of all the Great Lakes have remained reasonably stable over the last 12 months or so due to fairly stable precipitation patterns.

Precipitation over the lakes does vary from month to month and lake to lake. In September, rainfall over the basin amounted to 78% of the monthly average. This compares to 135% of average precipitation the month before.

Over the past year, however, rainfall and snowfall over the Great Lakes basin has balanced out so that there have been no extended periods of high or low water supplies.

Meanwhile, the level of Montreal Harbour averaged 9 cm lower in September of this year than it did in September of 1993. The September mean represented a 28 cm drop from the previous month's average.

This month's Harbour level is expected to remain below its 1967-93 average but well above chart datum.

At the Great Lakes Water Level Communications Centre, we know that

everyone -- including ourselves -- has a lot to learn about the Great Lakes.

For our part, we will be happy to visit your community and share our knowledge with you. There may be a few things you would like us to know as well.

Using any combination of 35mm slides, video tape, overhead transparencies and our own ingenuity, we can speak to you on your own terms. Whether you are a school teacher, a civic group organizer, a planning or engineering professional, we can design a talk to meet your needs.

Our range of expertise allows us to adjust our presentations to all levels of knowledge, whether we are speaking to a group of Grade 5s, or a seminar of professionals. For example, we can talk about:

Speaking of the Great Lakes...
... Like To Learn More About Them?

Facts And Figures
... Fathoming Flows Of Niagara River
How the Great Lakes-St. Lawrence System works -- its hydraulics and hydrology.

- How the Great Lakes originated and how they continue to change.
- How the Great Lakes and St. Lawrence function as a "system".
- How and why Lakes Superior and Ontario are regulated, and how regulation affects the system.
- Potential hazards for property on Great Lakes-St. Lawrence Shorelines.
- What you should know if you are planning to purchase lake shore property.

Last month, we said the average flow rate in the Niagara River is 5500 cubic metres per second. This figure should be explained.

The number 5500 comes from calculations that averaged the river's flow for a period prior to 1980. An updated value based on river flows from 1900 to 1993 is closer to 5700 cubic metres per second.

Flows in the Niagara River depend on the level of Lake Erie upstream. The higher the lake level, the higher the river's flow. The second (1900-1993) calculation of the River's flow rate includes the mid-1980's, a period during which Lake Erie's levels were at or near record highs for this century.

The lesson from this is that, like Niagara River flows, numbers indicating the River's average flow rate can vary depending upon the period of record used to make the calculation.

The average flow rate of the Niagara River is not the same as the average flow rate over Niagara Falls.

Some water upstream of the Falls is diverted to power plants on the Canadian and American sides and returned to the River before it flows into

Lake Ontario.

This means that the amount of water actually going over the Falls is less than the total flow of the Niagara River.

The Niagara Treaty of 1950 requires that, during daylight hours from the beginning of April to end of October, a minimum of 2832 cubic metres per second flow over the Horseshoe and American Falls. During the night, and in the winter months, the Falls must have a minimum flow of 1416 cubic metres per second.

The flow figures specified in the treaty are a result of extensive studies and testing of hydraulic models in the early part of this century.

Top of Page
Français | Contact Us | Help | Search | Canada Site
What's New | Topics | Publications | Weather | Home | About Us

part of Environment Canada's Green Lane™

Webmaster
Last Updated: 2001-08-22
Last Reviewed: 2001-08-22

Important Notices and Disclaimers
URL: http://www.on.ec.gc.ca/water/level-news/lvn94oct.html?CFID=15211176&CFTOKEN=97130256